

1

ADA 027672

SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Northern Italy, 06 May 1976

K.J. Hill, M.S. Dawkins, and M.D. Gillispie
Alexandria Laboratories

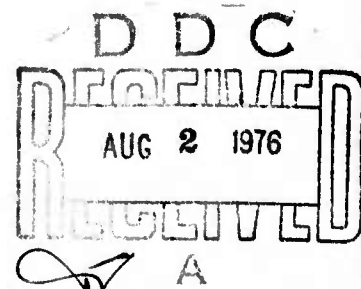
Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

June 1976

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

Sponsored By
The Defense Advanced Research Projects Agency
Nuclear Monitoring Research Office
1400 Wilson Boulevard, Arlington, Virginia 22209
ARPA Order No. 2897

Monitored By
VELA Seismological Center
312 Montgomery Street, Alexandria, Virginia 22314



Disclaimer: Neither the Defense Advanced Research Projects Agency nor the Air Force Technical Applications Center will be responsible for information contained herein which has been supplied by other organizations or contractors, and this document is subject to later revision as may be necessary. The views and conclusions presented are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the Defense Advanced Research Projects Agency, the Air Force Technical Applications Center, or the US Government.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER 14 SDCS-ER-76-102	2. GOVT. ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 6 SPECIAL DATA COLLECTION SYSTEM (SDCS) Northern Italy, 06 May 1976.	5. TYPE OF REPORT & PERIOD COVERED 7 Technical rept.	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) 10 K. J. Hill, [redacted] M.S. / Dawkins M. D. / Gillispie / M.D.	8. CONTRACT OR GRANT NUMBER(s) 15 F08606-74-C-0013 WARPA Order - 2897	9. PERFORMING ORGANIZATION NAME AND ADDRESS Teledyne Geotech 314 Montgomery Street Alexandria, Virginia 22314
10. CONTROLLING OFFICE NAME AND ADDRESS Defense Advanced Research Projects Agency Nuclear Monitoring Research Office 1400 Wilson Blvd.-Arlington, Virginia 22209	11. REPORT DATE 1130 June 30, 1976	12. NUMBER OF PAGES 10
13. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) 12 VELA Seismological Center 12 Montgomery Street Alexandria, Virginia 22314	14. SECURITY CLASS. (of this report) Unclassified	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		

mt

SDCS EVENT REPORT NO. 102

Northern Italy, 06 May 1976

DATE		TIME	
1976		05	
06		1976	
DISTRIBUTION/AVAILABILITY CODES			
REF	AVAIL. and/or SPECIAL		
A			

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	m_b	M_s
NORSAR	20:03:40.0	20:00:17	46 N	013 E	6.0	N/A
Hagfors	20:03:30.2	N/A	46 N	015 E	N/A	6.7

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

20:00:12.1 46.2N 013.1E 6.1 N/A

The programs used for LASA, NORSAR and ALPA data recovery are presently undergoing modifications. Information for LASA short-period is reported from their Teleseism Event Report; NORSAR short-period data are obtained from their bulletin. The long-period array beam recovery for these stations will be resumed upon completion of these modifications.

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at all SDCS stations, LASA and NORSAR. CPSO and RK-ON short-period data were retrieved from the field station digital tapes. All SP channels at HN-ME had polarity reversals; to correct this, mathematical inversions of the data were performed. Horizontal SP channels at all SDCS stations were rotated.

All SDCS stations recorded clipped long-period signal arrivals and are not included in this report.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response).

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION	
				SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14 00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	KS36000	KS36000
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

HYPOCENTER DETERMINATION

INPUT FOR EVENT 6 MAY 76
 20:00:17.0 43.000N 13.000E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CALC	REST		
NAO	20 03 40.0	0.0	0.0	14.7	355.6
HN-ME	20 09 34.6	-0.1	-0.1	53.7	301.6
RK-ON	20 10 49.6	-0.4	-0.4	64.6	317.8
FN-WV	20 10 53.9	0.5	0.5	65.1	300.3
WH2YK	20 11 26.4	-0.2	-0.2	70.4	344.0
CPSO	20 11 28.2	-0.6	-0.5	70.6	301.4
LAO	20 11 45.2	0.7	0.7	73.3	321.2

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
20:00:13.9	46.228N	13.048E	9. CALC	0.5	5	7
20:00:12.1	46.177N	13.097E	0. REST	0.5	3	7

CALC				REST			
	1	.	0		1	.	0
5	.		0	5	.		0
0	1	.	0	0	1	.	0
.
0	0	.	0	0	0	.	0
0	.		0	0	.		0
0	.	0		0	.	0	

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 1.39
 MAJOR 149.9KM. MINOR 39.5KM. AZ= 117 AREA= 18602 SQ.KM. REST

DATA SUMMARY

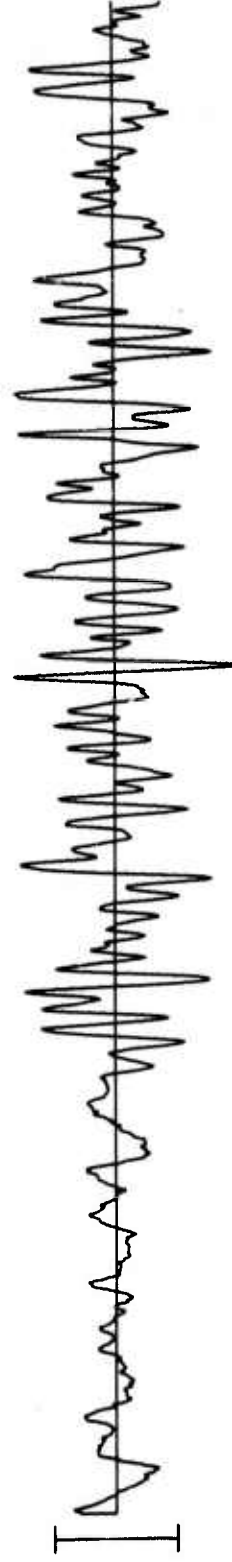
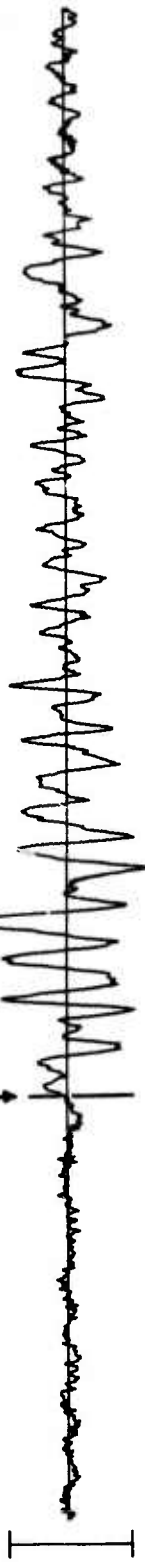
INPUT FOR EVENT 6 MAY 76
20:00:17.0 43.000N 13.000E 0KM.

STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
NAO M	EP	20 03 40.0		AB	1.0	1183.	6.15			14.7
HN-ME	EP	20 09 34.6		SPZ	1.6	824.	6.39			53.7
RK-ON	EP	20 10 49.6		SPZ	1.0	308.	6.19			64.6
FN-WV	EP	20 10 53.9		SPZ	1.0	223.	6.05			65.1
WH2YK	EP	20 11 26.4		SPZ	1.0	115.	5.66			70.4
CPSO	EP	20 11 28.2		SPZ	0.9	432.	6.24			70.6
LAO	EP	20 11 45.2		SAB	99.9	9999.				

ORIGIN	LAT.	LONG.	DEPTH (KM)	MAG	SDV	STA
20:00:13.9	46.228N	13.048E	9. CALC	6.08	0.28	5
20:00:12.1	46.177N	13.097E	0. REST	6.10	0.28	5

Short-period magnitudes (m_b) used in averaging are restricted to those recorded at distances between 20 and 110 degrees from the epicenter.

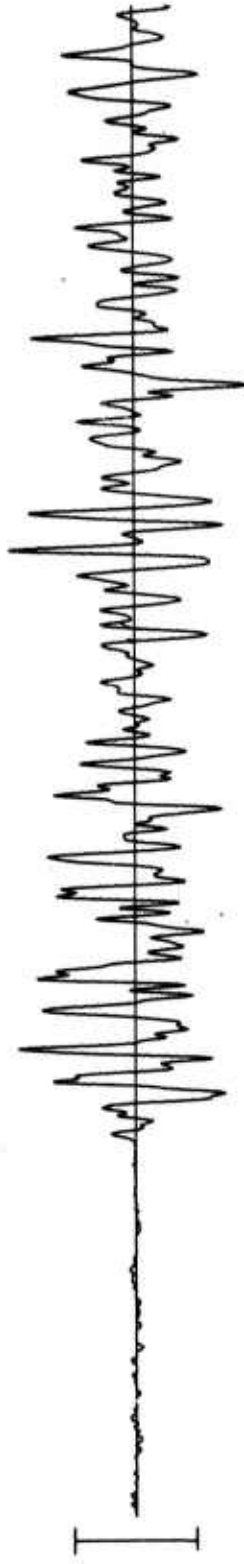
HN-ME 6 MAY 76
20:09:34.6



10 SEC

RK-QN 6 MAY 76

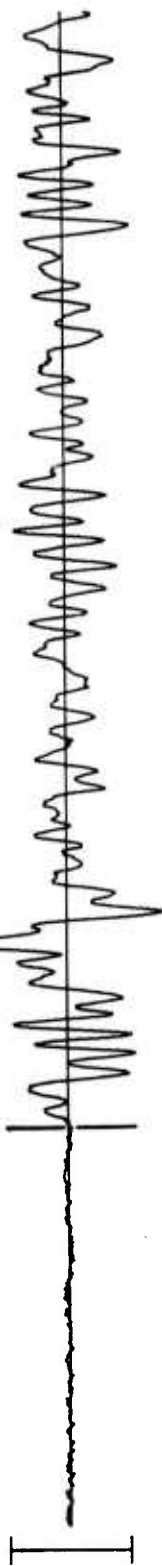
20:10:49.6



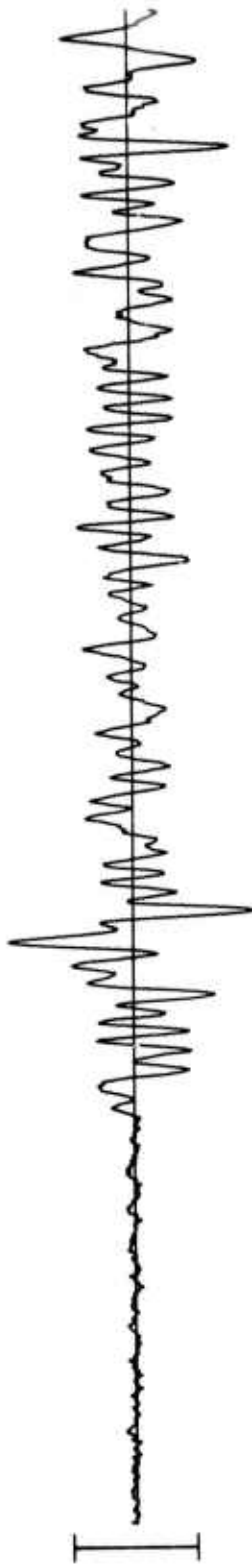
10 SEC

FN-WV 6 MAY 76
20:10:53.9

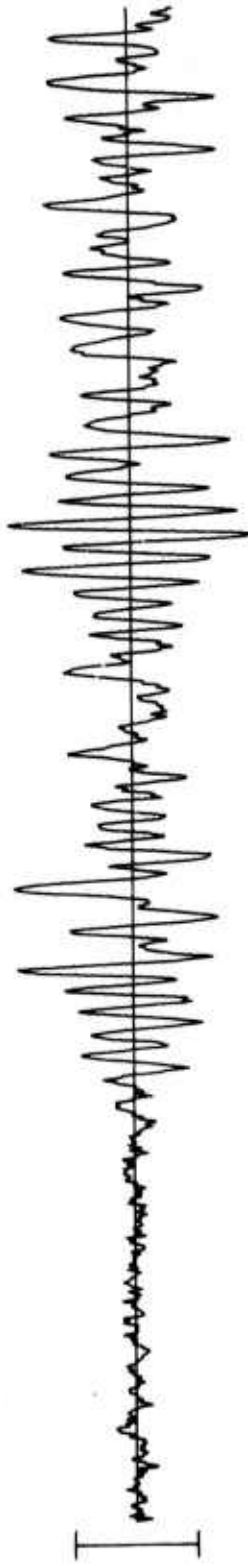
SPZ
209.40 MU



SPR
88.36 MU



SPT
49.01 MU



TIME

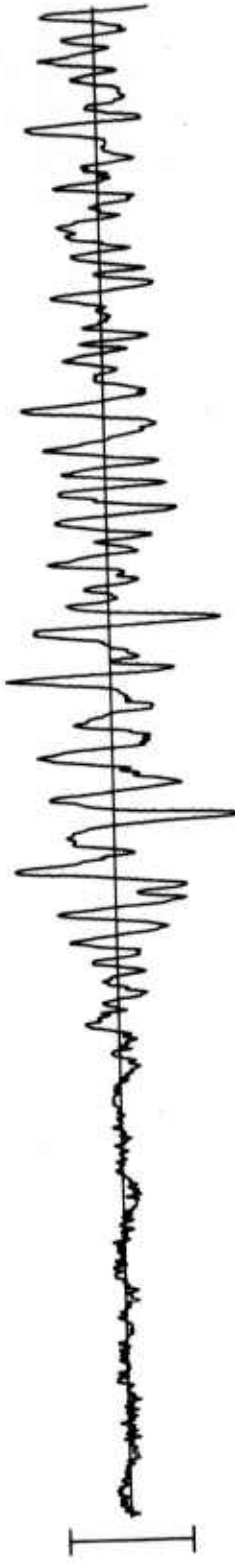


WH2YK 6 MAY 76
20:11:26.4

SPZ
83.31 MU



SPR
57.13 MU



SPT
41.22 MU



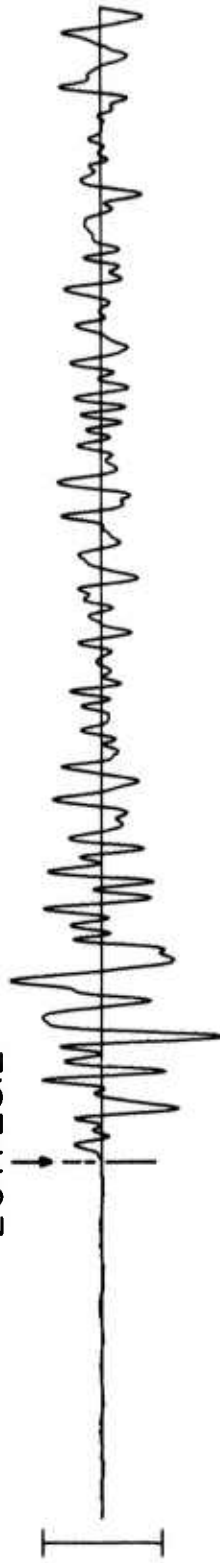
TIME



CPSO 6 MAY 76

20:11:28.2

SPZ
319.00 MU



SPR
74.00 MU



SPT
64.00 MU



10 SEC